

FIG. 1

MuniAuction
The First Municipal Bond Auction Website

22b
INFORMATION REGISTRATION AUCTION

16

22a

22c

FIG. 2

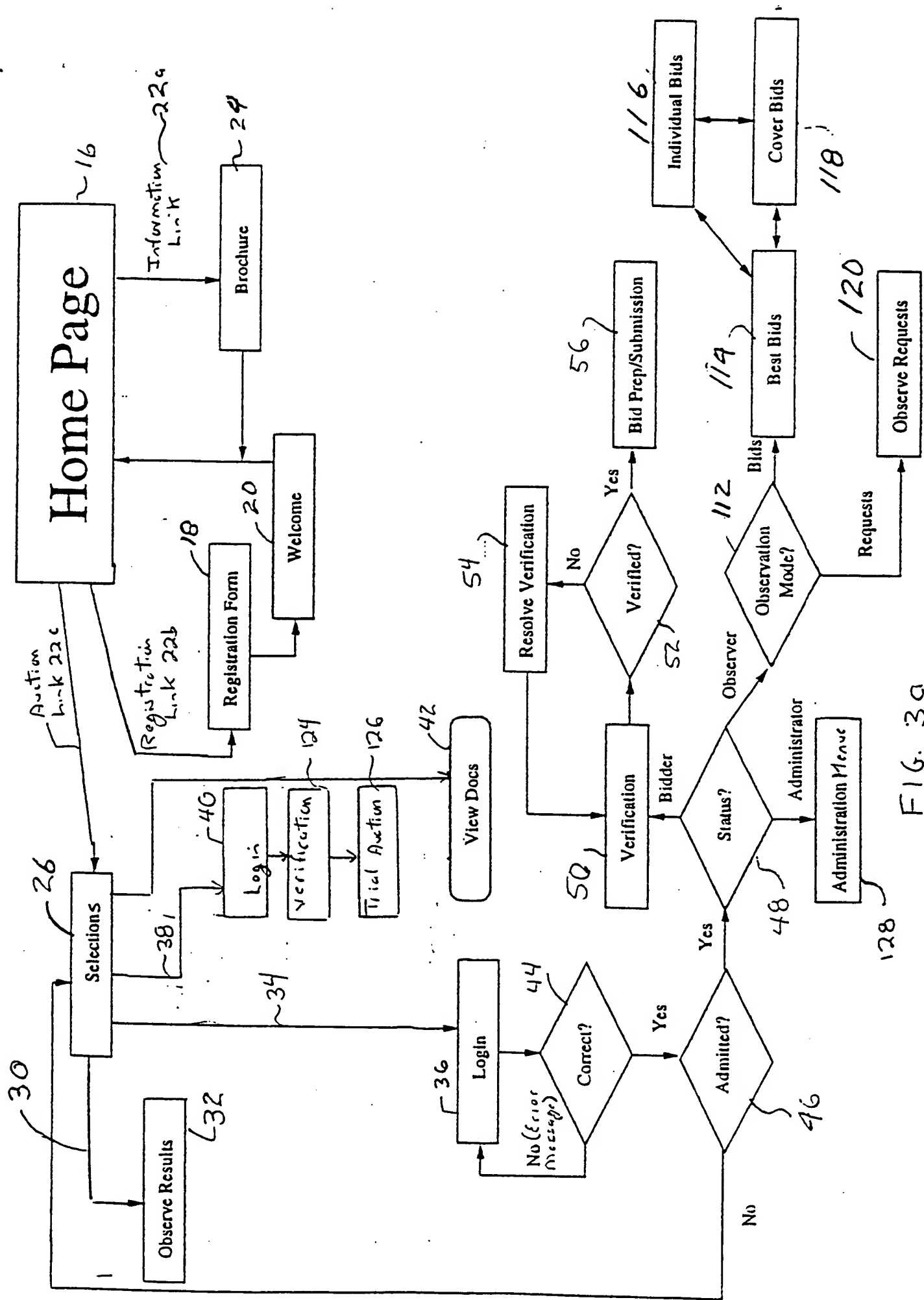


FIG. 3a

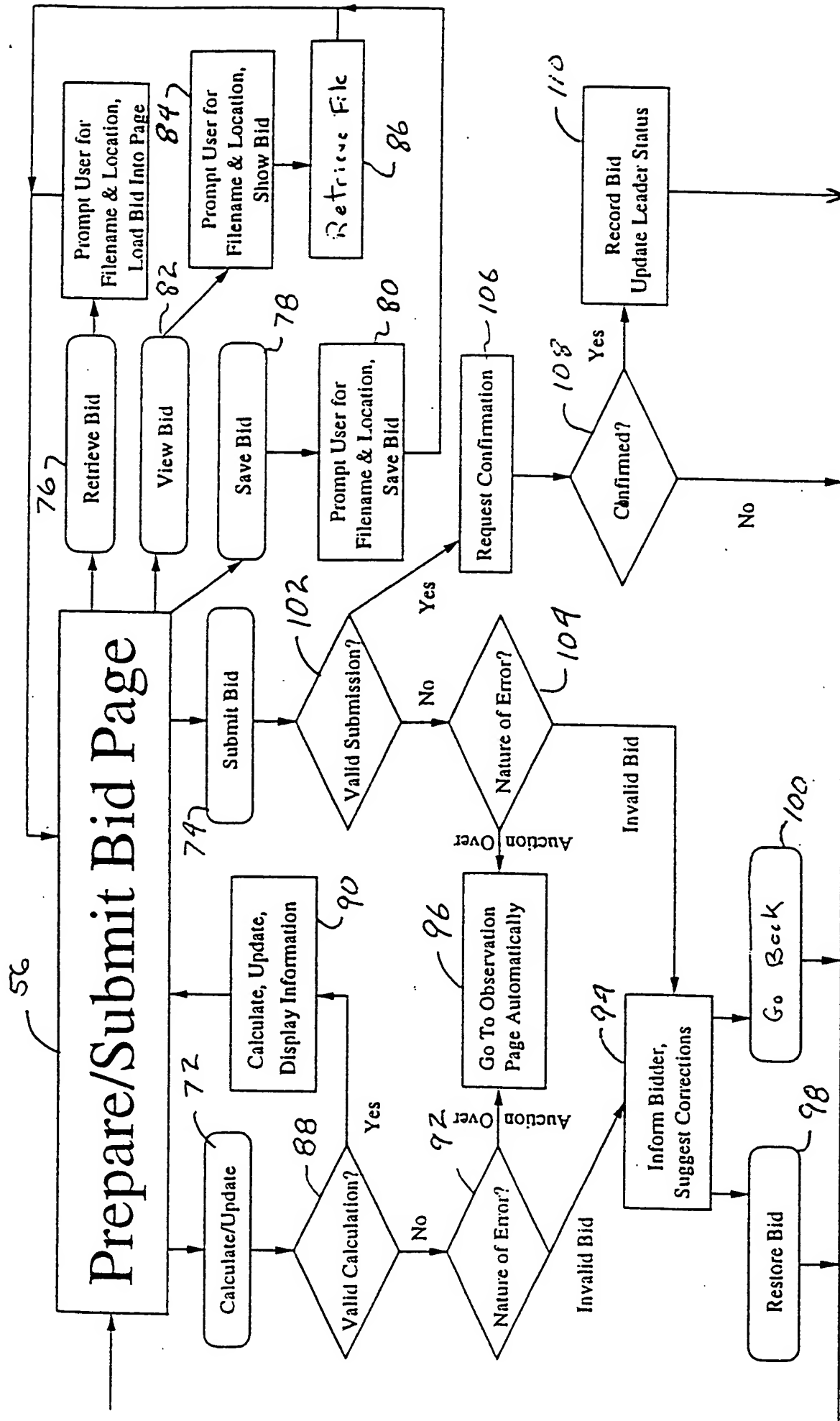


FIG. 3b

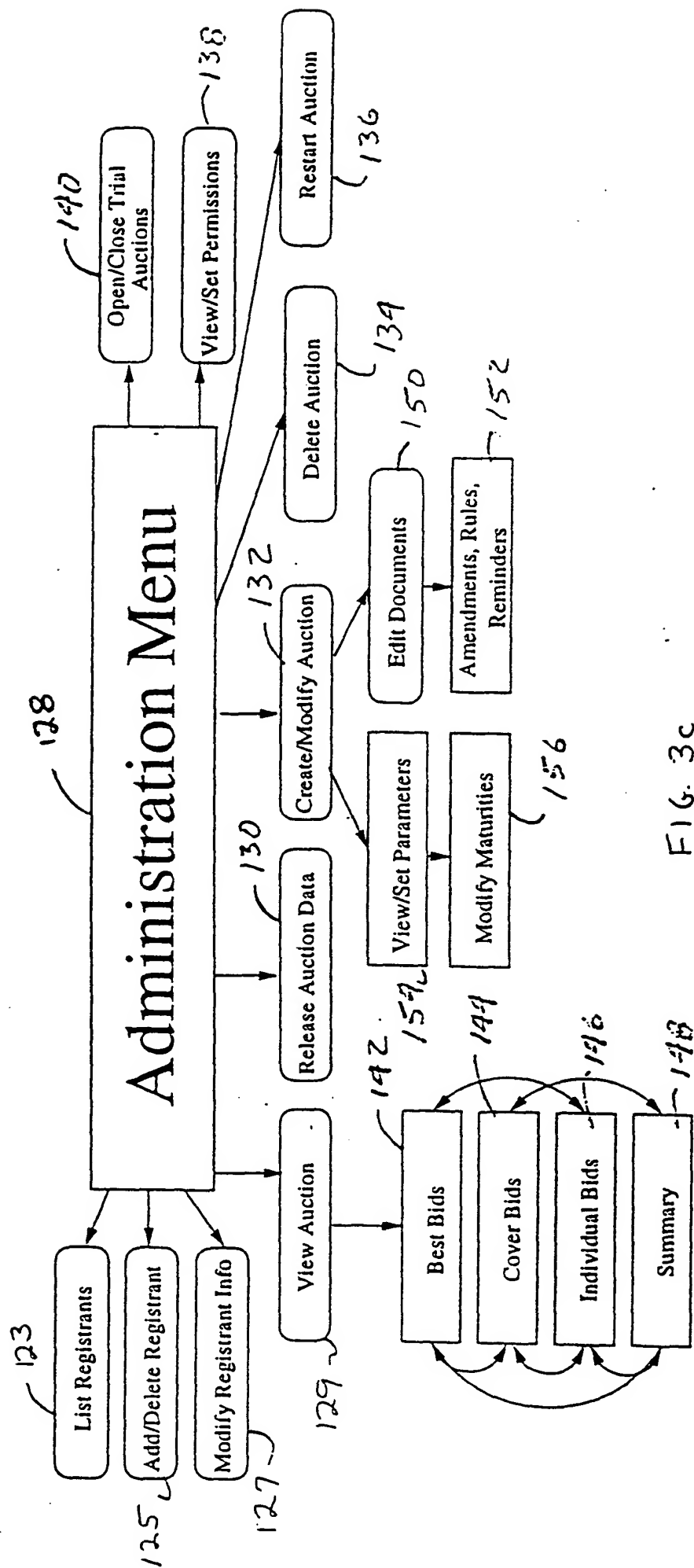


FIG. 3c

REGISTRATION QUESTIONS (Fields displayed in bold below are required.)

FIRST NAME:	
LAST NAME:	
ORGANIZATION:	
ADDRESS (1st Line):	
ADDRESS (2nd Line):	
CITY:	
STATE:	
ZIP:	
TELEPHONE:	
TELEFAX:	
E-MAIL:	
MOTHER'S MAIDEN NAME:	(for security reasons only, e.g., verify your identity by phone)

FIG. 4

Selections

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Issuer	State	Description	Size*	Auction Date*	Start Time*
City of Trial Auction (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Trial Auction (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	Any Day	Any Time
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Enter Auction"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/>					
City of Portland (All-or-None)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					
City of Portland (Maturity-by-Maturity)	OR	Limited Tax Revenue Bonds 1998 Series A	\$29,000,000	4/21/98	11:30 am EDT
(Amendments modified 4/20/98 @10:14 pm)					
<input type="button" value="Observe Results"/> <input type="button" value="View Notice of Sale"/> <input type="button" value="View Amendments"/> <input type="button" value="View POS"/> <input type="button" value="Request Admission"/>					

Go to: [MuniAuction Home Page](#), [Rules](#) (modified 4/16/98 @5:01 pm), [Instructions](#),
[Reminders](#), [Results](#)

FIG 5

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Observe Auction: Portland.1998A.MBM

MBM Best Bids

Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Tue., Apr 21, 1998	MBM	11:30 am	12:00 pm	11:13:05 am EDT	Over

\$29,000,000
City of Portland, Oregon
Limited Tax Revenue Bonds
1998 Series A

Best MBM TIC:	Best AON TIC:	Best AON Bidder:
4.9574 % (Not Winner)	4.9526 % (Winner)	Salomon Smith Barney (Winner)

Refresh

Principal

Due	Amount*	Coupon	Price	Best Yield	Best MBM Bidder
April 1, 2000	\$1,000,000	3.900%	99.703%	4.063%	U.S. Bancorp Securities, Inc.
April 1, 2001	\$1,040,000	4.000%	99.578%	4.155%	U.S. Bancorp Securities, Inc.
⋮	⋮	⋮	⋮	⋮	⋮
April 1, 2016	\$2,050,000	5.000%	98.004%	5.172%	ADVEST INC.
April 1, 2017	\$2,160,000	5.100%	98.710%	5.208%	U.S. Bancorp Securities, Inc.
April 1, 2018	\$2,270,000	5.125%	99.032%	5.203%	CIBC-Oppenheimer

Refresh

Click below to see other bidder results

LEBE-DS	WILL-MD	PRAG-RM	BELL-ER	GEOR-KD	HUTC-RD	FIRS-RE
FIDE-DD	ADVE-JL	INTE-SF	RAYM-JR	A.G.-GH	SEAT-MA	U.S.-KS
MORG-TB	COMM-CB	EDWA-JC	ARTE-BW	CIBC-WH	Cover Bids	Bid Summary

Go [Notice of Sale](#), [Amendments](#) (modified 4/20/98 @ 10:14 pm), [POS](#), [Rules](#) (modified to: 4/16/98 @ 5:02 pm) [Instructions](#), [Reminders](#), [Selections](#), [Results](#)

Exit
to: [MuniAuction Home Page](#)

FIG. 6

Login

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Auction Name: AON.TRIALAUCTION.SeriesA

Please go to Registration page if you have not yet registered with MusiAuction.

Enter your ID number:

Enter your password:

Note: Password is Case-Sensitive.

FIG. 7

ENTER  as a Bidder
as an Observer

Exit to: MusiAuction Home Page

BEST AVAILABLE COPY

Acknowledgement

In order to view this POS, you must first acknowledge that you are eligible to bid (i.e., you represent either a bank or NASD registered broker-dealer).

I Am Eligible

I Am Not Eligible

This shall not constitute a solicitation or offer to bid or purchase these securities to such persons or in such jurisdictions to which such offerings or solicitations are not permitted. An offer or solicitation shall be made only by means of the Preliminary Official Statement.

Back to: [Selections Page](#)

FIG. 8

Verification

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Your name is Edward Pencoske.
Your firm is Thorp Reed & Armstrong.
This auction is AON.TRIAL.AUCTION.1998A.
This auction is an All-Or-None auction.

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Please verify that the above information is correct.

☐ YES ☐ NO

Have you read the Notice of Sale and related Amendments (modified 4/20/98 @10:14 pm), if any, and do you agree to abide by the terms and conditions?

☐ YES ☐ NO

Have you read the Preliminary Official Statement?

☐ YES ☐ NO

Have you read the Rules of MuniAuction (modified 4/16/98 @5:01 pm) and do you agree to abide by them?

☐ YES ☐ NO

Enter Auction

Go Notice of Sale, Amendments (modified 4/20/98 @10:14 pm), POS, Rules (modified to: 4/16/98 @5:01 pm) Instructions, Reminders, Selections, Results
Exit
to: MuniAuction Home Page

FIG. 9

Auction

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Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Mon., Feb 23, 1998	23M	9:30 am	10:00 am	3:10:16 pm	Over

\$91,760,000
The Pittsburgh Water and Sewer Authority, Pennsylvania
Water and Sewer System First Lien Revenue Bonds,
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

This auction is competing with Pittsburgh Water And Sewer Series A AON.

As of 3:10:16 pm, bids have been submitted for all maturities.

<div>72</div> <div>Calculate/Update</div>		<p>IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.</p>				<div>74</div> <div>Submit Bid</div>	
<div>68</div> <div>Due</div>	<div>66</div> <div>Principal Amount</div>	<div>Coupon</div>	<div>Enter Either:</div>		<div>70</div> <div>Your Status</div>	<div>76</div> <div>Submitted Cpn-PP-YTM</div>	
September 01, 2017	\$8,275,000	%	%	OR	%	Not Winner	
September 01, 2018	\$8,695,000	%	%	OR	%	Not Winner	

BEST AVAILABLE COPY

September 01, 2025	\$12,370,000	%	%	OR	%	Not Winner
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<p>IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.</p>	
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Go to: [Notice of Sale](#), [Amendments](#) (modified 2/20/98 4:11:23 am), [PWS Rules](#) (modified 2-2-98 4:11:40 am), [Instructions](#), [Reminders](#), [Submissions](#)
Exit to: [MuniAuction Home Page](#)

FIG. 10

Auction

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Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Mon., Feb 23, 1998	AON	9:30 am	10:00 am	3:03:28 pm	Over

\$91,760,000
The Pittsburgh Water and Sewer Authority, Pennsylvania
Water and Sewer System First Lien Revenue Bonds,
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

Purchase Price: \$ 77 76
(not to be less than \$29,466,000.00)

Your TIC: NO BID Your Status: Not Winner

703 This auction is competing with Pittsburgh Water And Sewer Series A, MDN.

As of 3:03:28 pm, there has been at least one all-or-none bid submitted in this auction.

Calculate/Update		IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.				Submit Bid	
68 Due	66 Principal Amount	Serial/ Sinker/ Term	Coupon	Enter Either:			
September 01, 2017	\$8,175,000	Serial	%	Reoffering Price	OR	Yield-to-Maturity	
September 01, 2018	\$8,695,000	Serial	%	%	OR	%	
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:
September 01, 2025	\$12,370,000	Serial	%	%	OR	%	

IMPORTANT: Bidders must click the "Calculate/Update" button frequently during auction to update "Time of Last Update". Also, clicking "Calculate/Update" does not result in bid submission.

Go to: [Notice of Sale, Amendments](#) (modified 2/20/98 @ 11:23 am), [PWS Rules](#) (modified 2/20/98 @ 11:40 am), [Instructions](#), [Reminders](#), [Selections](#)
Exit to: [MuniAuction Home Page](#)

FIG. 11

Error

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Sorry. Your bid was invalid for the following reasons:

1. For the Sinking Fund redemptions maturing on September 01, 2022 you are not allowed to enter a yield.
2. For the Sinking Fund redemptions maturing on September 01, 2022 you have entered price or coupon values that are not identical to the values for the corresponding Term bonds maturing on September 01, 2023.
3. You specified bonds maturing on September 01, 2020 as Term bonds, but you did not specify bonds for the preceding maturity as Sinking Fund redemptions (i.e., "Sinker").
4. You specified bonds maturing on September 01, 2018 as Sinking Fund redemptions, but you did not specify the subsequent maturity as either Sinking Fund redemptions (i.e., "Sinker") or Term bonds.

To specify any maturity as a term bond maturity, you must specify one or more preceding maturities as Sinking Fund redemptions.

5. For the bonds maturing on September 01, 2017 you entered a coupon less than 1.00%.
6. Your Purchase Price must not be less than \$39,466,000.00
7. For the bonds maturing on September 01, 2017 your coupon entry of 0% does not conform to the rules of the auction. Coupon entered must be non-zero.

To return to the Auction Page with your most recent inputs, click the BACK button below.

BACK

To restore the Auction Page to your last successfully submitted bid, click the Restore button below (Warning: If no bid has yet been successfully submitted, clicking the Restore button will return you to a blank Auction Page).

Restore

Go to: [Notice of Sale, Amendments](#) (modified 2/20/93 @ 11:23 am), [POS, Rules](#) (modified 2/20/93 @ 11:40 am) [Instructions, Reminders, Selections](#)

Exit to: [MuniAuction Home Page](#)

FIG. 12

Confirmation

BEST AVAILABLE COPY

Auction Date	Auction Type	Start	End	Time Of Last Update	Auction Status
Any Day	AON			4:57:37 pm	

\$91,760,000
AON Trial Auction (Series A), Pennsylvania
Water and Sewer System First Lien Revenue Bonds,
Series A of 1998

Name of firm submitting bid: MuniAuction, Inc.

Are you sure you want to submit the following bid?

No, Go Back

Yes, Submit Bid

Purchase Price: \$90,000,000.00

Your TIC: 6.0803 %

Due	Principal Amount	Serial/ Sinker/ Term	Coupon	Price	Yield
Beginning of Term group					
September 01, 2017	\$8,275,000	Sinker	5.000%	100.000%	---
September 01, 2018	\$8,695,000	Sinker	5.000%	100.000%	---
September 01, 2019	\$9,140,000	Sinker	5.000%	100.000%	---
September 01, 2020	\$9,610,000	Sinker	5.000%	100.000%	---
September 01, 2021	\$10,105,000	Term	5.000%	100.000%	5.000%
End of Term group					
September 01, 2022	\$10,630,000	Serial	6.000%	100.000%	6.000%
Beginning of Term group					
September 01, 2023	\$11,180,000	Sinker	7.000%	100.000%	---
September 01, 2024	\$11,755,000	Sinker	7.000%	100.000%	---
September 01, 2025	\$12,370,000	Term	7.000%	100.000%	7.000%
End of Term group					

Go to: [Notice of Sale, Amendments](#) (modified 2/20/93 @ 11:23 am), [BOS, Rules](#) (modified 2/20/93 @ 11:40 am), [Instructions](#), [Reminders](#), [Selections](#)

Exit to: [MuniAuction Home Page](#)

FIG. 13

Administration

Auction Permissions: Pittsburgh Water And Sewer Series A AON

Observe All

Change Auction Permissions

Return to Menu

Admission Status	Allow Bid	Allow Obs	ID Number	Organization
Requested	<input type="checkbox"/>	<input type="checkbox"/>	MUNI-OV	MuniAuction, Inc.
Requested	<input type="checkbox"/>	<input type="checkbox"/>	SHOD-RO	The Shodor Education Foundation
	<input type="checkbox"/>	<input type="checkbox"/>	CMU-OH	CMU

	<input type="checkbox"/>	<input type="checkbox"/>	ONLI-KO	OnLine Partners
Requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SHOD-MS	Pulcrum
	<input type="checkbox"/>	<input type="checkbox"/>	TEST-MT	Test, Inc.

Change Auction Permissions

Return to Menu

FIG. 14

Administration

Create New Auction

Date of Issuance	Month	Year	Day	Year
Month	Year	Day	Year	
First Issue	Month	Year	Day	Year
Second Issue	Month	Year	Day	Year
Third Issue	Month	Year	Day	Year
Date of First Interest Payment	Month	Year	Day	Year
First Optional Call Date	Month	Year	Day	Year
Second Optional Call Date	Month	Year	Day	Year
Third Optional Call Date	Month	Year	Day	Year
Fourth Optional Call Date	Month	Year	Day	Year
Fifth Optional Call Date	Month	Year	Day	Year
Sixth Optional Call Date	Month	Year	Day	Year
Seventh Optional Call Date	Month	Year	Day	Year
Eighth Optional Call Date	Month	Year	Day	Year
Ninth Optional Call Date	Month	Year	Day	Year
Tenth Optional Call Date	Month	Year	Day	Year
Eleventh Optional Call Date	Month	Year	Day	Year
Twelfth Optional Call Date	Month	Year	Day	Year
Thirteenth Optional Call Date	Month	Year	Day	Year
Fourteenth Optional Call Date	Month	Year	Day	Year
Fifteenth Optional Call Date	Month	Year	Day	Year
Sixteenth Optional Call Date	Month	Year	Day	Year
Seventeenth Optional Call Date	Month	Year	Day	Year
Eighteenth Optional Call Date	Month	Year	Day	Year
Nineteenth Optional Call Date	Month	Year	Day	Year
Twentieth Optional Call Date	Month	Year	Day	Year
Twenty-first Optional Call Date	Month	Year	Day	Year
Twenty-second Optional Call Date	Month	Year	Day	Year
Twenty-third Optional Call Date	Month	Year	Day	Year
Twenty-fourth Optional Call Date	Month	Year	Day	Year
Twenty-fifth Optional Call Date	Month	Year	Day	Year
Twenty-sixth Optional Call Date	Month	Year	Day	Year
Twenty-seventh Optional Call Date	Month	Year	Day	Year
Twenty-eighth Optional Call Date	Month	Year	Day	Year
Twenty-ninth Optional Call Date	Month	Year	Day	Year
Thirtieth Optional Call Date	Month	Year	Day	Year
Thirty-first Optional Call Date	Month	Year	Day	Year
Thirty-second Optional Call Date	Month	Year	Day	Year
Thirty-third Optional Call Date	Month	Year	Day	Year
Thirty-fourth Optional Call Date	Month	Year	Day	Year
Thirty-fifth Optional Call Date	Month	Year	Day	Year
Thirty-sixth Optional Call Date	Month	Year	Day	Year
Thirty-seventh Optional Call Date	Month	Year	Day	Year
Thirty-eighth Optional Call Date	Month	Year	Day	Year
Thirty-ninth Optional Call Date	Month	Year	Day	Year
Fortieth Optional Call Date	Month	Year	Day	Year
Forty-first Optional Call Date	Month	Year	Day	Year
Forty-second Optional Call Date	Month	Year	Day	Year
Forty-third Optional Call Date	Month	Year	Day	Year
Forty-fourth Optional Call Date	Month	Year	Day	Year
Forty-fifth Optional Call Date	Month	Year	Day	Year
Forty-sixth Optional Call Date	Month	Year	Day	Year
Forty-seventh Optional Call Date	Month	Year	Day	Year
Forty-eighth Optional Call Date	Month	Year	Day	Year
Forty-ninth Optional Call Date	Month	Year	Day	Year
Fiftieth Optional Call Date	Month	Year	Day	Year
Fifty-first Optional Call Date	Month	Year	Day	Year
Fifty-second Optional Call Date	Month	Year	Day	Year
Fifty-third Optional Call Date	Month	Year	Day	Year
Fifty-fourth Optional Call Date	Month	Year	Day	Year
Fifty-fifth Optional Call Date	Month	Year	Day	Year
Fifty-sixth Optional Call Date	Month	Year	Day	Year
Fifty-seventh Optional Call Date	Month	Year	Day	Year
Fifty-eighth Optional Call Date	Month	Year	Day	Year
Fifty-ninth Optional Call Date	Month	Year	Day	Year
Sixtieth Optional Call Date	Month	Year	Day	Year
Sixty-first Optional Call Date	Month	Year	Day	Year
Sixty-second Optional Call Date	Month	Year	Day	Year
Sixty-third Optional Call Date	Month	Year	Day	Year
Sixty-fourth Optional Call Date	Month	Year	Day	Year
Sixty-fifth Optional Call Date	Month	Year	Day	Year
Sixty-sixth Optional Call Date	Month	Year	Day	Year
Sixty-seventh Optional Call Date	Month	Year	Day	Year
Sixty-eighth Optional Call Date	Month	Year	Day	Year
Sixty-ninth Optional Call Date	Month	Year	Day	Year
Seventieth Optional Call Date	Month	Year	Day	Year
Seventy-first Optional Call Date	Month	Year	Day	Year
Seventy-second Optional Call Date	Month	Year	Day	Year
Seventy-third Optional Call Date	Month	Year	Day	Year
Seventy-fourth Optional Call Date	Month	Year	Day	Year
Seventy-fifth Optional Call Date	Month	Year	Day	Year
Seventy-sixth Optional Call Date	Month	Year	Day	Year
Seventy-seventh Optional Call Date	Month	Year	Day	Year
Seventy-eighth Optional Call Date	Month	Year	Day	Year
Seventy-ninth Optional Call Date	Month	Year	Day	Year
Eightieth Optional Call Date	Month	Year	Day	Year
Eighty-first Optional Call Date	Month	Year	Day	Year
Eighty-second Optional Call Date	Month	Year		

[illegible]

Minimum Allowable Benefiting Person <input type="checkbox"/>	Minimum Allowable Benefiting Person <input type="checkbox"/>
Minimum Allowable Company <input type="checkbox"/>	Minimum Allowable Company <input type="checkbox"/>
Amounting Trade Required Amounting Trade Not Required	Zero Company Allowed Zero Company Not Allowed Zero Company Required Trade to Display <input type="checkbox"/>
No restrictions on company Company and to which it belongs From Feb. 1, 1975 to 1/31/76	Allow All But Allow None But Only
Number of restrictions to be entered <input type="checkbox"/>	
Address name <input type="checkbox"/>	
Company (if applicable) <input type="checkbox"/>	
Notes <input type="checkbox"/>	
Action description <input type="checkbox"/>	

Fig. 15